



I. PWS INFORMATION:

PWSID#: PWS Name: PWS Town:
 Treatment Plant Name: Reporting Period → Month: Year:

II. SOURCE WATER QUALITY CONDITIONS & SITE SPECIFIC DISTRIBUTION SYSTEM CRITERIA:

1. **Coliform Criteria (Source)** – Sample results must satisfy the criteria listed below in at least 90% of the measurements from previous 6 months, otherwise SWTR TT Violation (Tier 2).
2. **Coliform Criteria (Distribution)** – MCL for Total Coliform in 11 of 12 previous months must be met (as per Total Coliform Rule 310 CMR 22.05(8)). The DEP shall determine if the failure to meet this requirement was caused by a deficiency in treatment of the source water. If yes, then SWTR TT Violation (Tier 2).
3. **DBPR Criteria (Distribution)** – MCL and/or MRDLs for the Disinfection By-Product Rule (310 CMR 22.07E) must be met, otherwise SWTR TT Violation (Tier 2).

| Coliform Criteria (Source) | | | | | | Site Specific Criteria (Distribution) | |
|-----------------------------------|-------|--------------------------|-------------------|-----------|--|--|--|
| (SWTR Form A) Monthly Information | | | Previous 6 Months | | | TCR MCL Violation* | DBPR MCL or MRDL Violation* |
| Month* | Year* | % Coliform Meeting Limit | Period | Average % | Average < 90% | | |
| January | | | Aug – Jan | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| February | | | Sep – Feb | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| March | | | Oct – Mar | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| April | | | Nov – Apr | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| May | | | Dec – May | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| June | | | Jan – Jun | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| July | | | Feb – Jul | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| August | | | Mar – Aug | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| September | | | Apr – Sep | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| October | | | May- Oct | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| November | | | Jun – Nov | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| December | | | Jul - Dec | | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |

* Indicate TCR and DBPR violation status for each Month/Year.

4. **Turbidity Criteria (Source)**
 - The turbidity level in a representative sample of the source water prior to the 1st or only point of disinfection cannot exceed 1 NTU, unless 5 or fewer NTU units have been allowed by the Department.
 - The turbidity level cannot exceed 5 NTU (at any time) unless, the DEP determines that any such event was caused by circumstances that were unusual and unpredictable; and there have not been more than two events in the past 12 months the system served water to the public, or more than five events in the past 120 months the system served water to the public. An "EVENT" is a series of consecutive days during which at least one turbidity measurement each day exceeds 5 NTU.
 - The turbidity source compliance criteria listed in this section is not applicable to unfiltered systems or sources where DEP has required filtration. Refer to 310 CMR 22.08 for proper turbidity MCL compliance criteria.

Enter the Maximum Daily Source Water Turbidity value for the current month/year (NTU): (SWTR Form A)

| Turbidity Values > 1 NTU this month | | Turbidity "EVENT" Values > 5 NTU in last 120 months (10 years) | | | |
|-------------------------------------|-----------------------|--|-----------------------|--------------------------|----------------------|
| Date | Turbidity Value (NTU) | Date | Turbidity Value (NTU) | Duration (Dates to/from) | Date Reported to DEP |
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- For each day that the maximum daily source water turbidity value is > 1 NTU, the DEP must be notified by the end of the next business day. SWTR TT Violation (Tier 2).
- If DEP is not consulted within 24 hours then it is a SWTR TT (Tier 1) violation requiring public notification within 24 hours.



III. DISINFECTION PERFORMANCE CRITERIA:

5. **Point-of-Entry Minimum Disinfectant Residual Criteria** - Residual Disinfectant concentration cannot be < 0.2 mg/L for more than 4 hours. SWTR TT Violation (Tier 2).

Minimum Disinfectant Residual at Point-of-Entry to Distribution System

| Day | mg/l |
|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| 1 | | 6 | | 11 | | 16 | | 21 | | 26 | | 31 | |
| 2 | | 7 | | 12 | | 17 | | 22 | | 27 | | | |
| 3 | | 8 | | 13 | | 18 | | 23 | | 28 | | | |
| 4 | | 9 | | 14 | | 19 | | 24 | | 29 | | | |
| 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | | |

Residual Measured
 Free Cl₂
 Total Cl₂
 Combined Cl₂

If at any time the residual falls below 0.2 mg/l in the water entering the distribution system, the supplier of water must notify the Department as soon as possible, but no later than by the end of the next business day. The supplier of water also must notify the Department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/l within four hours.

| Date(s) Residual < 0.2 mg/l | Duration of Low Level (hrs.) | Date Reported to DEP | Date(s) Residual < 0.2 mg/l | Duration of Low Level (hrs.) | Date Reported to DEP |
|-----------------------------|------------------------------|----------------------|-----------------------------|------------------------------|----------------------|
| | | | | | |
| | | | | | |
| | | | | | |

6. **Distribution System Disinfectant Residual Criteria** - Residual Disinfectant concentration (V) cannot be undetectable in greater than 5% of samples in a month, for any two consecutive months. SWTR TT Violation (Tier 2). Chlorine residuals must be measured at the same time and location as total coliform *distribution routine & repeat* samples. If no residual is detected, an HPC sample must be collected and analyzed.

Total # of HPC samples taken during month: # HPC sites > 500/mL: # HPC sites ≤ 500/mL:

| | |
|-----|--|
| = a | # of sites where Cl ₂ residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl ₂ residual report) |
| = b | # of sites HPC samples were taken <i>instead</i> of Cl ₂ residual measurements |
| = c | # of sites where no Cl ₂ residual was detected and no HPC sample was taken |
| = d | # of sites where no Cl ₂ residual was detected and HPC > 500/mL |
| = e | # of sites where no Cl ₂ residual measurement was made and HPC > 500/mL |

Water in the distribution system with a heterotrophic bacteria concentration (HPC) less than or equal to 500/mL, is deemed to have a detectable disinfectant residual for purposes of determining compliance. When analyzed, report HPC results on your monthly DEP Bacteriological Report.

$V = \frac{(c + d + e) \times 100}{(a + b)}$ This Month % V = Previous Month % V = Is V > 5% for 2 months? Yes or No

7. **Inactivation Ratio - Disinfection Requirement Criteria** – The disinfection treatment must be sufficient to ensure at least 99.9% (3-log) inactivation of *Giardia lamblia* cysts and 99.99% (4-log) inactivation of viruses, every day the system serves water to the public, except any one day each month.

- If one disinfectant/sampling point - Record the date and value for any inactivation ratio (CT_{calc} / CT_{99.9}) < 1.0 (SWTR Form B).
- If more than one disinfectant/sampling point - Record the date and value for any inactivation ratio SUM (CT_{calc} / CT_{99.9}) < 1.0 (SWTR Form C).

Check if no values for the month were < 1.0

| Date | Inactivation Ratio Value < 1.0 | Date | Inactivation Ratio Value < 1.0 |
|------|--------------------------------|------|--------------------------------|
| | | | |
| | | | |
| | | | |

The inactivation ratio (CT_{calc}/CT_{99.9}) is determined before or at the first customer during peak hourly flow. If the inactivation ratio is < 1.0 for more than one day during the month, the 99.9% *Giardia lamblia* inactivation requirement has not been achieved. SWTR TT Violation (Tier 2).

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: _____

Date: _____ Title: _____

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.